

SUSANA MARTINEZ Governor

JOHN A. SANCHEZ Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050 1190 South St. Francis Drive (87505) P.O. Box 5469, Santa Fe, NM 87502-5469 Phone (505) 827-0187 Fax (505) 827-0160

www.nmenv.state.nm.us



RYAN FLYNN Cabinet Secretary - Designate

> BUTCH TONGATE Deputy Secretary

TOM SKIBITSKI
Director
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 19, 2013

Honorable Darren De Yapp, Mayor Village of Chama 299 4th St./P.O. Box 794 Chama, NM 87520

Re: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Chama Wastewater Treatment

Plant (WWTP), Chama, New Mexico, NM0027731, May 28, 2013

Dear Mayor DeYapp,

Enclosed, please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas, for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the Clean Water Act.

Problems noted during this inspection are discussed in the Further Explanations section of this inspection report. You are encouraged to review the inspection report, and required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify, in writing, both USEPA (Diana McDonald, USEPA (6EN-WC), 1445 Ross Ave., Dallas, TX 75202) and NMED (at the above address) regarding modifications and compliance schedules.

Thank you for the assistance of Mr. BJ Samora during this inspection. If you have any questions about this inspection report, please contact me at sarah.holcomb@state.nm.us or 505-222-9587.

Sincerely,
/s/ Sarah Holcomb
Sarah Holcomb
Surface Water Quality Bureau

Cc: Rashida Bowlin, USEPA (6EN-AS) by email
Hannah Branning, USEPA (6EN-AS) by email
Darlene Whitten-Hill, USEPA (6EN-AS) by email
Carol Peters-Wagnon, USEPA (6EN-WM) by email
Diana McDonald, USEPA (6EN-WM) by email
Larry Giglio, USEPA (6EN-PP) by email
Bill Chavez, NMED District 1 Manager, by email

Mike Coffman, NMED UOC Program, by email

Form Approved OMB No. 2040-0003 Approval Expires 7-31-85



NPDES Compliance Inspection Report

	Section A: National Data System Coding																																					
	Transaction Code NPDES yr/mo/day Inspec. Type Inspector Fac Type																																					
1	N	2	5	3 N M 0 0 2 7 7 3 1 11 12 1 3 0 5 2 8 17 1					18	С	ا		19	s	20	1	Ĺ																					
					ī		ī				ì		ı	i	•		ì]	Rema	rks	1										ī	1		1			
	M	I	N	o	R			W	ľ	W	T		P																			L						
	- 1	pecti	on Wor	k Da	í					Fac	•	1	1	ion l	Ratii	ng		_		BI	l	QA	1			 I			 - I		Reser 	ved-	I		 	 I	 L.	-
	67				69						70	2	2					7	71	N	72	N		73			74	7.	5			上					8	0
	Section B: Facility Data																																					
POT CHA	Name and Location of Facility Inspected (For industrial users discharging to POTW, also include OTW name and NPDES permit number) HAMA WWTP, RIO ARRIBA COUNTY, NEW MEXICO: NORTH ON HWY 94. TURN ENTRY ON DETERMINE TO A RESERVED OF ARRIVATION OF THE COUNTY AND ARRIVATION OF THE COUNTY AND ARRIVATION OF THE COUNTY AND ARRIVATION OF THE COUNTY OF THE C																																					
	EFT ON HWY 64/84, LEFT ON DIRT ROAD BETWEEN CAR WASH AND HIGHWAY IAINTENANCE YARD. FOLLOW DIRT ROAD TO WWTP. Exit Time/Date 1300 hours / 5-28-2013 Permit Expiration Date 10-31-2016																																					
	ame(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) r. BJ Samora, WWTP Operator (575) 209-0936																																					
IVII.	DJ 5ai	nora,	** ** 11	Ор	crato	1 (3)	13) 2	.07-0	750																					SIC	4952	į.						
May	Name, Address of Responsible Official/Title/Phone and Fax Number Mayor Darren DeYapp (575) 756-2184 PO Box 794, Chama, NM 87520 N. 36° 52' 43.68" W106° 35' 25.04"																																					
	Yes * No																																					
	Section C: Areas Evaluated During Inspection (S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)																																					
s	Pern	nit						N	И	F	low]	Mea	sur	eme	nt					M	О	pera	ion	ıs & 1	Maint	enanc	ce			N	CSC)/SS	ю					
M	Rec	ords	Report	s				τ	U	;	Self-	Mo	nito	ring	Pro	ogra	m			N	s	ludg	e Ha	andli	ing/Di	sposa	ı			N	Poll	utio	n Pr	ever	tion			
M	Fac	lity !	Site Re	view				N	М	(Com	plia	nce	Scho	dul	les				N] 1	Pretr	eatr	ment						N	Multimedia							
U	Effl	uent	Receiv	ing '	Wate	rs		N	M	I	abo	rate	ory							N	S	torm	W	ater						N	Oth	er:						
									_	Sec	tion	D:	Sun	nma	y o	f Fir	ndin	gs/(Con	nmen	ts (A	ttach	ad	ditio	nal sh	eets i	f nece	ssar	y)									
	Section D: Summary of Findings/Comments (Attach additional sheets if necessary) 1. The inspector arrived at the facility at 1000 hours on May 28, 2013 and conducted an entrance interview with Mr. BJ Samora, Operator, where she made introductions, explained the purpose of the inspection, and presented her credentials. An exit interview was conducted the same day, at the Village Hall, with Mr. Samora, Mayor Darren DeYapp, and Mr. Levi Sandoval, contractor for the Village, where the preliminary findings of the inspection were discussed. 2. An "M" rating for compliance schedules was given because the Village did not submit quarterly reports for Nitrogen and Phosphorus as required by the permit until it was brought to their attention through an Administrative Order from USEPA. The reports were submitted in their response to the AO on May 2, 2013. 3. Please see Further Explanations for details.																																					
Nar	Name(s) and Signature(s) of Inspector(s) Agency/Office/Telephone/Fax Date (10.2012)																																					
Sara	Sarah Holcomb /s/ Sarah Holcomb 6-19-2013																																					
Sign	nature	of M	anagei	nent	QA	Rev	view	er								Age	ncy/	Off	ice/	Phon	e an	d Fax	Νι	ımbe	ers						Da	te						
Bru	ce Yur	din /	s/ Bruc	e Yu	rdin										5	505-	827-	279	5												6-1	7-20)13					

CHAMA WWTP	PERMIT NO. NM0027731
SECTION A – PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	EXPLANATION ATTACHED <u>NO</u>)
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	⊠y □n □na
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	□ y □ n ⊠ na
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	⊠ y □ n □ na
4. ALL DISCHARGES ARE PERMITTED	⊠ y □ n □ na
SECTION B – RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. S M U NA (FURTHER DETAILS:	EXPLANATION ATTACHED <u>YES</u>)
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	$\square_{\mathrm{Y}} \square_{\mathrm{N}} \square_{\mathrm{NA}}$
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	□S □ M ☒ U □ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	□ y ⊠ n □ na
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	⊠ y □ n □ na
c) ANALYTICAL METHODS AND TECHNIQUES.	⊠ y □ n □ na
d) RESULTS OF ANALYSES AND CALIBRATIONS.	⊠ y □ n □ na
e) DATES AND TIMES OF ANALYSES.	□ y ⊠ n □ na
f) NAME OF PERSON(S) PERFORMING ANALYSES.	⊠ y □ n □ na
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	⊠s □m □u □na
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	□S⊠M□U□NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	□ y □ n □ na
SECTION C – OPERATIONS AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED.	PER EXPLANATION ATTACHED <u>YES</u>)
1. TREATMENT UNITS PROPERLY OPERATED.	⊠s □ m □ u □ na
2. TREATMENT UNITS PROPERLY MAINTAINED.	⊠s □m □u □na
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED .	⊠ S □ M □ U □ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	⊠s □ m □ u □ na
5. ALL NEEDED TREATMENT UNITS IN SERVICE	⊠ S □ M □ U □ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	□s □m ⊠u □na
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	⊠ S □ M □ U □ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	□ y ⊠ n □ na □ y ⊠ n □ na □y ⊠ n □ na

CHAMA WWTP	PERMIT NO. NM0027731
SECTION C – OPERATIONS AND MAINTENANCE (CONT'D)	
9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	□ y ⊠ n □ na □ y □ n ⊠ na □y □ n ⊠ na
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	□ y ⊠ n □ na □ y □ n ⊠ na
SECTION D – SELF-MONITORING	
PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. □ S □ M ☒ U □ NA (FURTHER DETAILS:	R EXPLANATION ATTACHED <u>YES</u>).
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	⊠ y □ n □ na
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	⊠ y □ n □ na
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	□ y ⊠ n □ na
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	⊠ y □ n □ na
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	$\square_{Y} \square_{N} \square_{NA}$
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	□ y ⊠ N □ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	□ y ⊠ n □ na
b) PROPER PRESERVATION TECHNIQUES USED.	⊠ y □ n □ na
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	⊠ y □ n □ na
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	□ y ⊠ n □ na
SECTION E – FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA (FURTHER DETAILS:.	EXPLANATION ATTACHED <u>YES</u>)
PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE No flume at influent. Totalizer meter is out of service.	□y ⊠ n □ na
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	⊠ y □ n □ na
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	⊠ y □ n □ na
4. CALIBRATION FREQUENCY ADEQUATE. RECORDS MAINTAINED OF CALIBRATION PROCEDURES. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	$oxtimes_{Y} igsqcup_{N} igsqcup_{NA}$ $oxtimes_{Y} igsqcup_{N} igsqcup_{NA}$
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	⊠ y □ n □ na
6. HEAD MEASURED AT PROPER LOCATION.	□ y ⊠ n □ na
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	□ y ⊠ n □ na
SECTION F – LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. S M D U NA (FURTHER EXIDETAILS:	PLANATION ATTACHED <u>YES</u>
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)	⊠ y □ n □ nA

BELEN WWTP						PERMIT NO. NN	10020150				
SECTION F – LABORATORY (CONT'D)											
2. IF ALTERNATIVE A	NALYTICAL PROCEDI	URES ARE USED, PROF	PER APPROVAL HAS B	EEN OBTAINED			NA				
. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. \Begin{array}{ c c c c c c c c c c c c c c c c c c c											
4. QUALITY CONTRO	L PROCEDURES ADEQ	UATE.] s ⊠ m □ u □	NA				
5. DUPLICATE SAMPI	LES ARE ANALYZED.	10 % OF THE TIME.				\square Y \boxtimes N \square	NA				
6. SPIKED SAMPLES A	ARE ANALYZED. <u>0</u> %	6 OF THE TIME.				X Y N D	NA				
7. COMMERCIAL LAE	ORATORY USED.					⊠ y □ n □	NA				
LAB NAME	Summit En	vironmental Laboratories		Seacrest G	roup						
LAB ADDRESS	3310 Win S	St., Cuyahoga Falls, OH		1341 Cann	on St., Louisville, CO 8002	<u>27</u>					
PARAMETERS PERF	FORMED BOD, TSS	, NH3, TP, Al, TN, Fecal		Whole Eff	luent Toxicity						
SECTION G – EF	FLUENT/RECEIVIN	IG WATERS OBSEI	RVATIONS.	s □ m ⊠ u □ N.	A (FURTHER EXPLANATION	N ATTACHED <u>YES</u>).					
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER				
001	None observed	None observed	None observed	None observed	None observed	Green					
RECEIVING WATER	ROBSERVATIONS										
SECTION H – SL	UDGE DISPOSAL										
SLUDGE DISPOSAL DETAILS:	L MEETS PERMIT REQU	JIREMENTS.		□s□м□u⊠	NA (FURTHER EXPLANA	ATION ATTACHED <u>NO</u>).					
1. SLUDGE MANAC	GEMENT ADEQUATE T	O MAINTAIN EFFLUEI	NT QUALITY.			□ѕ□м□ι	J ⊠ NA				
2. SLUDGE RECOR	DS MAINTAINED AS R	EQUIRED BY 40 CFR 5	03.			□s□м□t	J ⊠ NA				
3. FOR LAND APPL	JED SLUDGE, TYPE OF	LAND APPLIED TO: _	N/A (e.g., FOREST, AC	RICULTURAL, PUBLIC	CONTACT SITE)						
SECTION I – SA	MPLING INSPECTI	ON PROCEDURES	(FURTHER EXPLANATIO	ON ATTACHED).							
1. SAMPLES OBTA	INED THIS INSPECTION	N.				□y⊠n	□ NA				
4. TYPE O	F SAMPLE OBTAINED										
GRAB	COM	POSITE SAMPLE I	METHOD FR	EQUENCY							
3. SAMPLES PRESE	3. SAMPLES PRESERVED. □ Y □ N ☒ NA										
4. FLOW PROPORT	TONED SAMPLES OBTA	AINED.				□Y□N	× NA				
5. SAMPLE OBTAIN	NED FROM FACILITY'S	SAMPLING DEVICE.				□Y□N	× NA				
6. SAMPLE REPRES	SENTATIVE OF VOLUM	IE AND MATURE OF D	ISCHARGE.			□ч□n	⊠ _{NA}				
7. SAMPLE SPLIT V	VITH PERMITTEE.					\square Y \square N	× NA				
8. CHAIN-OF-CUST	ODY PROCEDURES EM	MPLOYED.				□ч□n	× NA				
9. SAMPLES COLLI	ECTED IN ACCORDANG	CE WITH PERMIT.				□ү□п	× NA				

Compliance Evaluation Inspection Chama Wastewater Treatment Plant NPDES Permit No. NM0027731 May 28, 2013

Introduction

On May 28, 2013, Sarah Holcomb of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Chama Wastewater Treatment Plant (WWTP). The Chama WWTP has a design flow capacity of 0.3 MGD (million gallons per day) and is classified as a minor municipal discharger under the Federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0027731. This permit regulates the WWTP discharge to the Rio Chamita, thence to the Rio Chama in segment 20.6.4.119 NMAC of the *State of New Mexico Standards for Interstate and Intrastate Surface Waters*, 20.6.4 NMAC. This segment includes the designated uses of domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representatives, observations made by the NMED inspector, and records and reports kept by the permittee and/or NMED.

Upon arrival at the WWTP at 1000 hours on May 28, 2013, the inspector met Mr. BJ Samora, Plant Operator. During the entrance interview, the inspector showed her credentials, made introductions and explained the purpose of the inspection. A tour of the facility commenced thereafter, and the inspector also reviewed the facility's laboratory and records. An exit interview to discuss the preliminary findings of the inspection was conducted at 1300 hours on May 28, 2013 at the Village Hall with Mr. Samora, Mayor Darren De Yapp, and Mr. Levi Sandoval, contractor for the village.

Treatment Scheme

The Village of Chama has four (4) lift stations throughout the municipality that lift the sewage to the plant. Three (3) of these lift stations have generators associated with them. The influent enters the lagoon system through a grinder pump that lifts the influent through a ¾ inch bar screen. There is no mechanism for flow measurement at this location in the facility. No flume, weir or staff gage exists to check the totalizer meter (the totalizer was not functioning at the time of this inspection.) The flow then enters a splitter box which is capable of splitting the influent between two aerated, concrete-lined lagoons. The influent flow is currently being sent through the aerated lagoons in series to provide longer retention times as well as to sustain dissolved oxygen levels at their maximum. At the time of this inspection, only one floating aerator was functioning. The total detention time in both ponds is approximately 27 days, according to Mr. Samora. The flow then enters a serpentine chlorine contact chamber. Disinfection is achieved by chlorine injection followed by dechlorination with sulfur dioxide. The operational staff recently changed the operation of the Cl₂ contact chamber to provide a longer detention time to ensure the full disinfection/dechlorination process is taking place. The effluent then exits through a 60° v-notch weir into an encased 10" pipe to the Rio Chamita.

Sludge

Sludge has never been removed from the lagoons. Mr. Levi Sandoval, contractor for the village, stated that he periodically checks the sludge depth with a sludge judge and the approximate depth of the sludge in the lagoons at this time is 1.4-1.5 feet.

Further Explanations

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

<u>Section B – Recordkeeping and Reporting Evaluation</u> – Overall rating of <u>Marginal</u>

The permit requires in Part III.A.7, Duty to Provide Information:

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating thins permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

Findings for Recordkeeping and Reporting:

The inspector requested copies of bench sheets and other records for the months of November 2012 and April 2013 for review after the inspection. Upon returning to the office and reviewing those records, the inspector noted that flow data was not included. The inspector contacted Mr. Samora at 1015 hours on June 6, 2013 to request copies of the flow records for those months in order to determine how the loading calculations were done on the facility's DMRs. The inspector also requested at that time that records for *E. coli* sampling also be forwarded, as the records available to the inspector only indicated that the facility had analyzed their effluent samples for fecal coliform. The inspector attempted to follow up with Mr. Samora on Monday, June 10, but was unable to reach Mr. Samora because the telephone number was disconnected. The inspector then contacted Mr. Levi Sandoval, backup contractor for the Village, to provide the same information. These documents were received via email by the inspector on June 14, 2013. After review of this information, the inspector determined that only minimum and average flow data was included, and requested the totalized flow data on June 17, with the notification that the report was going to be finalized on the 19th. As of the mailing of this report, the totalized data had not been received.

From review of the DMRs and a calculation check, the inspector found that E. coli had been incorrectly reported as zero for all parameters in the month of November. The estimated values are shown in the DMR calculation check section of this report. (The values are estimated because an accurate loading value could not be calculated without totalized flow data.)

The inspector noted that the DMRs submitted recently still have the previous permit's limits on them. For example, in looking at Phosphorus, the DMRs still note that the requirement is a "report". The permit issued in 2011 does have actual limits for phosphorus. The paper DMRs that the facility is using should be amended, or the permittee should employ NetDMR for reporting their data.

<u>Section C – Operations and Maintenance</u> – Overall rating of <u>Marginal</u>

The permit requires in Part III.B.3.b:

The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

And, in 20.7.4.13.A NMAC, it states:

In order to operate the various types of treatment processes at public wastewater facilities, the indicated level of certification shall be required:

		Рорі	ulation Serv	_' ed	
Type of Treatment Process	25 to 500	501 to 5,000	5,001 to 10,000	10,001 to 20000	20,000+
Aerated lagoons	SWW	WW2	WW2	WW2	WW2

<u>Findings</u> for Operations and Maintenance:

The Village of Chama's population in 2010 was 1,024 people, according to the US Census Bureau. Currently, in terms of operations staff, the village has employed Mr. BJ Samora, who holds a Level I wastewater certification, and started in this position in October 2012. Mr. Samora just tested for his Level II certification, but at the time of this inspection did not yet know whether he had passed his test. The village also retains a contract operator, Mr. Levi Sandoval, who assists with operation of the facility and sample collection when needed. The facility representative indicated to the inspector that they were in the process of hiring another operator. It is good practice to provide a backup operator in the event that the primary operator is sick or needs to take a vacation.

At the time of this inspection, it was also noted that the Standard Operating Procedures, plant manuals and an emergency plan were all in draft format and had not yet been finalized.

<u>Section D – Self Monitoring</u> – Overall rating of <u>Unsatisfactory</u>

The permit requires in Part I.A.1:

Effluent Characteristics		Discharg	ge Limitati	ons	Monitoring Rea	quirements			
		Lbs/day,	unless not	ted	Mg/l, un	less noted			
Pollutant	Storet	30-day	Daily	7-day	30-day	Daily	7-day	Measurement	Sample type
	Code	Avg	Max	avg	avg	max	avg	frequency	
Biochemical	00310	75	N/A	113	30	N/A	45	Twice/month	Grab
Oxygen									
Demand, 5-									
day									
Total	00530	225	N/A	338	90	N/A	135	Twice/month	Grab
Suspended									
Solids									
E. coli	51040	N/A	1.43	N/A	126	235 (2*)	N/A	Twice/month	Grab
			(3*)		(2*)				
Total	50060	N/A	N/A	N/A	N/A	11 ug/L	N/A	5 days/week	Instantaneous
Residual									<i>Grab</i> (4*)
Chlorine									

Effluent Characteristics	Discharge Monite	oring	Monitoring Requirements			
Whole Effluent Toxicity (PCS 22414) (7-	30-day Average	7-day Minimum	Measurement	Sample Type		
day NOEC) (9*) Interim Limit	10% (9*)	10% (9*)	Frequency			
Ceriodaphnia dubia (9*)	Report	Report	Once/quarter	24-Hr Composite		
Pimephales promelas (9*)	Report	Report	Once/quarter	24-Hr Composite		

And, in Part II.F.2.d.iii, the permit states:

The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping and/or storage.

And, in Part III.D.5, Additional Monitoring by the Permittee:

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

Findings for Self Monitoring:

Discussion during this inspection showed that the operator is currently taking a large grab sample for the purposes of Whole Effluent Toxicity testing. As shown above, the permit requires that this monitoring is done by taking a 24 hour composite sample. This is most commonly done with the use of an automatic sampler, but the village does not currently own one. Another issue with the composite sample collection procedure is that the sample is not chilled until it is placed into the cooler for shipping.

From discussions with the permittee's representative, it appears that chlorine monitoring occurs at a much more frequent rate than required by the permit. However, this data is not being reported on the DMRs submitted to USEPA. The inspector brought this to the permittee's attention during the exit interview.

In the month of November, two samples for Total Aluminum were required. There was only one sample analyzed for Aluminum data, which was a non-detect. The inspector believes that the monthly averages were incorrectly reported as zero on that month's DMR.

Also, regarding Aluminum, the inspector had concerns in looking over the reporting data for other months, specifically because the daily maximum loading value for Aluminum was being reported as zero. The permittee's lab is using EPA Method 200.7 for analysis of Aluminum, which the lab states has a Method Detection Limit (MDL - listed as LOQ on the reports) of 0.1 mg/L. This is insufficient for the analysis of the metal at the current permit limits. 0.1 mg/L equates to 100 ug/L, and the permittee's limit is 58 ug/L (30 day average) and 87 ug/L (daily max). Although the permittee has been reporting zero on their DMRs, this is not an accurate representation of whether they are actually meeting their permit limits. The permittee should evaluate other methods for Aluminum approved under 40 CFR Part 136 (such as EPA Method 200.8) to employ a test/MDL that will reach below their permit limits.

Section E – Flow Measurement Evaluation – Overall rating of Marginal

The permit states in Part III.C.6 Flow Measurements:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement:

There is basically no influent flow monitoring system set up at the facility. There is no flume at the influent portion of the plant, and the totalizer meter installed in 2009 that was once operational is no longer in service. At the time of this inspection, work was being done to correct the totalizer meter.

Calibration is being done on the effluent meter between the totalizer and the 60° v-notch weir. The permittee's representative indicated that this takes place approximately once or twice per week.

Section F – Laboratory Evaluation – Overall rating of Marginal

The permit states in Part III.C.5.c:

An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical tests shall be maintained by the permittee or designated commercial laboratory.

Findings for Laboratory:

During review of the permittee's records, it was noted that no duplicate samples were being analyzed. EPA recommends that duplicate samples be analyzed at least 10% of the time in an adequate quality control program. It was also noted that there was no data to show that the contract laboratory was analyzing spiked samples for the metals analysis being conducted for aluminum.

Section G – Effluent/Receiving Waters Evaluation – Overall rating of Unsatisfactory

The permit states in Part II.2, Total Phosphorus and Nitrogen:

The permittee shall comply with the following schedule of activities for the attainment of state water quality standards-based final effluent limitations for Total Phosphorus and Total Nitrogen, at Final Outfall 001, where applicable.

<u>Findings</u> for Effluent/Receiving Waters:

The permittee received an Administrative Order from USEPA on March 25, 2013, which specified exceedances of effluent limitations for aluminum, nitrogen and phosphorus. The village's response, dated May 2, 2013, indicates that many of the issues brought forth in the AO will be addressed with the construction of a new wastewater facility.

The AO addresses the effluent exceedances through December 2012. The inspector included a synopsis of DMR exceedances (as reported) from January 2013 to March 2013 in the tables, below (values in bold are exceedances):

	Nitrogen, ammonia t	itrogen, ammonia total (as N)						
	Quantity or		Quality or					
	Loading		Concentration					
	30 day average	Daily Max	30 day average	Daily Max				
Permit Limit	12.7 lbs/day	19.05 lbs/day	5.1 mg/L	7.65 mg/L				
January 2013	15.6	16.3	19.75	20.6				
February 2013	12.8	14.1	18.28	20.1				
March 2013	10.5	13.0	15.55	19.2				

	Aluminum, total (as	Al)		
	Quantity or		Quality or	
	Loading		Concentration	
	30 day average	Daily Max	30 day average	Daily Max
Permit Limit	0.22 lbs/day	0.15 lbs/day	58 ug/L	87 ug/L
January 2013	71.3	0	90	180
February 2013	255.7	0	365	190
March 2013	347.9	0	515	540

	Phosphorus, total	(as P)		
	Quantity or		Quality or	
	Loading		Concentration	
	30 day average	Daily Max	30 day average	Daily Max
Permit Limit	2.5 lbs/day	Report	1.0 mg/L	1.5 mg/L
January 2013	2.7	2.9	3.4	3.7
February 2013	2.4	2.5	3.4	3.5
March 2013	5.7	5.8	8.4	8.6

DMR Calculation Check

BOD and TSS loading values could not be calculated due to the absence of totalized flow data.

BOD

November 2012

Date	Daily Value	Totalized Flow (mgd) *	Loading Value (lbs/day)	7 day averages
11-7-2012	24.0 mg/L	(IIIgu)	(100) day)	Wk1:
11-20-2012	28.0 mg/L			Wk2:
Totals:	52.0			

⁷ day average concentration value: 28.0 mg/L (permittee reported 24.0 mg/L)

TSS

November 2012

Date	Daily Value	Totalized Flow	Loading Value	7 day averages
	•	(mgd) *	(lbs/day)	
11-7-2012	39.0 mg/L			
11-20-2012	16.0 mg/L			
Totals:	55.0			

⁷ day average concentration value: 39.0 mg/L (permittee reported 39.0 mg/L)

E. coli

November 2012

Date	Daily Value	Totalized Flow	Loading Value	7 day averages
		(mgd) *	(lbs/day)	
11-7-2012	31.8 cfu/100 mls			
11-20-2012	196.8 cfu/100 mls			
Totals:	228.6			

E. coli daily max: 196.8 cfu/100 mls (permittee reported 0 mg/L)

30 day average geomean: log (196.8) + log (31.8) = 3.796452214; $3.796452214 \div 2 = 1.898226107$; antilog (1.898226107) = 79.11 cfu/100 mls (permittee reported 0 mg/L)

Daily max (loading): 0.9548 lbs/day (permittee reported 0 lbs/day) ¹ (This loading value was estimated using average flow from the facility on this day, since that was the only flow data available.)

³⁰ day average concentration value: $52.0 \div 2 = 26.0 \text{ mg/L}$ (permittee reported 26.0 mg/L)

³⁰ day average concentration value: $55.0 \div 2 = 27.5 \text{ mg/L}$ (permittee reported 27.5 mg/L)

¹ Formula given in the permit is: {[Flow in MGD x cfu/100 mls effluent x 3.79x10⁷]/1 x 10⁹}

^{*} Totalized data should have been used to calculate loading values; this information was not provided to the inspector to facilitate the calculation checks to be accurately included in this inspection report.

Official Photograph Log

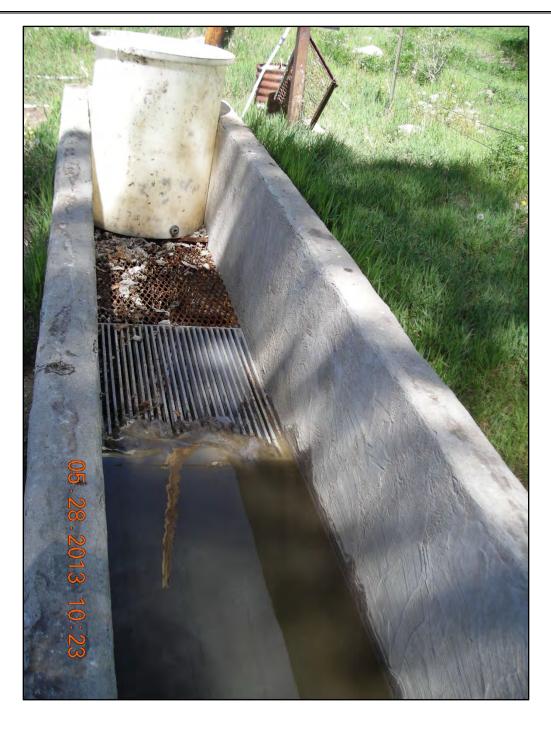
Photo # 1

Photographer: Sarah Holcomb Date: 5-28-2013 Time: 1023 hours

City/County: Chama/Rio Arriba County

Location: Chama WWTP

Subject: Influent channel and ¾" bar screen. There is no flow measurement equipment functional at the influent channel.



Official Photograph Log

Photo # 2

Photographer: Sarah Holcomb	Date: 5-28-2013	Time: 1032 hours
City/County: Chama/Rio Arriba Cou		

Location: Chama WWTP

Subject: Western pond of the lagoon system. Note the algal growth occurring from turnover within the ponds (seasonal temperature change).



Official Photograph Log

Photo # 3 & 4

Photographer: Sarah Holcomb Date: 5-28-2013 Time: 1046 hours

City/County: Chama/Rio Arriba County

Location: Chama WWTP

Subject: Old influent flow meter (left) which is not currently functional. The new totalizer installed in 2009 is on the right. The meter fluctuated between reading out a number and showing zero flow at the time of the inspection.





Official Photograph Log Photo # 5

Photographer: Sarah Holcomb	Date: 5-28-2013	Time: 1056 hours			
City/County: Chama/Rio Arriba Cou					

Location: Chama WWTP

Subject: Effluent pipe and channel prior to entering the Rio Chamita.

